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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,838	03/06/2002	Dean C. Alberson	0455FV.45576	8562

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EXAMINER

MACARTHUR, VICTOR L

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 01/13/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,838

Applicant(s)

ALBERSON ET AL.

Examiner

Victor MacArthur

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1. 6) ☐ Other: .

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “shoes” of claim 12 and must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “58” has been used to designate both the U-shaped engagement shoes and side member of figure 4 and as described in the specification. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13 and 15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification and drawings fail to support the limitation of “a tension cable... to

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prestress the panels...". In fact, the specification (para.0027) implies that a prestress is imparted by prebending the panels rather than the use of a tension cable.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The term "plastic bending" in claim 15 is used by the claim to mean "elastic deformation" while the accepted meaning is "permanent deformation beyond the yield point of the material such that the material cannot regain its former shape". Note that the applicant's disclosure describes bending akin to elastic deformation (i.e. elastic bending) since the material is described as regaining its former shape.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b)

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only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6461076 to Stephens.

Claims 1 and 3. Stephens discloses (fig. 1 and col.2, ll.14-17) a roadway crash cushion comprising: a collapsible, substantially self-restoring collapsing portion (16) comprising a pair of substantially parallel panels (outer sides of 16) formed substantially of a thermoplastic material comprising polyethylene.

Claim 2. Stephens discloses (fig.1) at least one cambered portion (outermost portions of 16) in each of the panels.

Claim 4. Stephens discloses (fig.1) at least one substantially rectangular supporting frame (34) that is secured to each of the panels.

Claim 5. Stephens discloses (fig.1) a longitudinal, ground-mounted rail member (30) and wherein the supporting frame engages the rail member for longitudinal movement (col.2, ll.44-47) along the rail member.

Claim 6. Stephens discloses (fig.2 and col.2, ll.34-36) that each of the panels has a cambered portion (outer portion of 16) that provides a point of flexure for the panel.

Claim 7. Stephens discloses (fig.1) a nose piece (member 34 furthest from 12).

Claim 8. Stephens discloses (fig.1) a roadway crash cushion comprising a collapsible cushion portion (16) having a cambered panel member (outer portion of 16) that collapsibly folds during a collision (col.2, ll.34-36) and, due to shape memory, will substantially return to an unfolded condition following a collision (col.2, ll.14-17).

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Claim 9. Stephens discloses (fig.1) a ground-mounted longitudinal basetrack (30); a plurality of substantially rigid diaphragms (34) that are affixed to the panel member, the diaphragms each engaging the base track for slidable movement thereupon (col.2, ll.44-47).

Claim 10. Stephens discloses (fig.4) that the basetrack comprises a pair of parallel rail members (left and right sides of 30).

Claim 11. Stephens discloses (fig.2) that each diaphragm comprises an enlarged rectangular upper portion (rectangular upper portion of 34) to which the panel members are secured.

Claim 12. Stephens discloses (fig.3) that each diaphragm comprises a lower portion having a pair of shoes (38) for slidably engaging the rail members.

Claim 13. Stephens discloses (fig.9 and col.5, ll.28-30) a tension cable (44) affixed to at least one diaphragm (46) to prestress (fig.11) the panel members in a bending relation at their cambered portions.

Claim 14. Stephens discloses (fig.1) a nose piece (half portion of 16 furthest from 12, facing away from 12) formed of a sheet of plastic bent substantially into a "U" shape.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6461076 to Stephens.

Claims 15-18. Stephens discloses (figs.1, 3, 11) a roadway crash cushion comprising: a longitudinal, ground-mounted base track (30) that comprises a pair of parallel rail members (sides of 30); a pair of **planar** panel members (outer portions of 16) that are positioned parallel to one another and in a substantially vertical orientation, the panel members each having a cambered portion (outer vertex portion best seen in fig.11) that promotes bending of the panel member along the cambered portion; a plurality of diaphragms (34) for securing the panel members to each other and to the base track, the diaphragms each comprising a pair of shoes (38) for sliding engagement of the diaphragm to the basetrack rail members; and a tension cable (fig.9, ref.44 and col.5, ll.28-30) affixed to at least one diaphragm to prestress (fig.11) the panel members in a bending relation at their cambered portions. The panel members and diaphragms are secured to one another to form a linear array of closed crushable cells (circular regions within each member 16 and hourglass regions surrounded by 16 and 34), wherein the cells have different sizes (circular and hourglass) to provide for separate collapsible zones within the array of cells. Stephens does not disclose that the panel members are planar in shape or that the cells are hexagonally shaped. It has generally been recognized that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the shape of Stephens' panel members to be planar and the cells to be hexagonal, as such practice is a design consideration within the skill of the art.

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Furthermore, it is noted that the applicant's disclosure states (p.5, ll.8-10) that cell shape (the walls of which are comprised of the panels) is not critical to the applicant's invention.

Claim 19. Stephens discloses (fig.1) that the array of cells has a pair of primary collapsible zones (cell furthest from 12 and cell closest to 12) located at upstream and downstream ends of the array.

Claim 20. Stephens discloses (fig.1) that the array of cells has a secondary collapsible zone located between the primary collapsible zones.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor MacArthur whose telephone number is (703) 305-5701. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

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January 9, 2003

Myo Birch for

Lynn H. Browne

Supervisory Patent Examiner

Technology Center 3600